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09/751,250	12/29/2000	Hans Carlsson	4015-665	8630
24112	7590	06/15/2004	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			PHAN, TRI H	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/751,250

Applicant(s)

CARLSSON ET AL.

Examiner

Tri H. Phan

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1, 3-11, 13-14 and 16-23 is/are rejected.
- 7) ☒ Claim(s) 2, 12 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 10 and 14 are objected to because of the following informalities:

- In claim 10, line 3, the word “a” in front of the phrase “generating a broadcast teleservice message” should be removed for clarifying with the method claimed invention.

Applicant is respectfully suggested to be consistent in using terminologies, for example, in claim 10, lines 10-11 and 13-14, the limitation “said second protocol” should be correct to -- said second messaging protocol -- for clarity.

- Regarding claim 14, Applicant is respectfully suggested to provide the consistent in using terminologies, for example, in line 4, “a group identification number” should be change to -- a first group identification number --, in line 6, “a group identification number” should be change to -- a second group identification number --, in lines 10-11, “a group identification field and a data field” should be change to -- a first group identification field and a first data field --, in lines 16-17, “a group identification field and a data field” should be change to -- a second group identification field and a second data field --, in lines 17-18, “a group identification” should be change to -- a second group identification number --, for clarity.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In regard to claim 1, lines 12-13, it recites the limitation "said second messaging protocol". There is insufficient antecedent basis for this limitation in the claim 1.

- Regarding claim 14, it recites the limitations "said sub-channel data" in lines 7 and 19. There is insufficient antecedent basis for these limitations in the claim 14.

In lines 8 and 11, the plurality of "group identification numbers" in the limitations "said group identification numbers" renders the claim indefinite because it is unclear whether these limitations refer to "a group identification number" above in lines 4 and 6, which is a singular number.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-11, 13 and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bjelland et al.** (U.S.2002/0034935) in view of **Daly et al.** (U.S.6,393,014).

- In regard to claims 1, 16 and 21, **Bjelland** discloses in Figs. 1-6 and in the respective portions of the specification about the method and apparatus for mapping between communication protocols in the packet-switched communication system ("*communication network*") having split control-plane/user-plane architecture; wherein the general packet radio service 'GSPR' operates with circuit-switched, e.g. the global system for mobile system 'GSM' or "*circuit-switched network*", for giving access to their registered subscribers ("*providing communications services to mobile terminals*"; For example see Figs. 1-2; pag. 1, para. [0004] to para. [0006]) to the Internet network or PDN ("*packet-switched network*"; For example see Figs. 1-2; pag. 1, para. [0007]), which have services with request to attach to the selected service networks ("*having service with*"; For example see Figs. 1-2; pag. 2, para. [0014]), and converts media between different protocols (For example see pag. 3, para. [0020], pag. 2, para. [0009]; **Bjelland** does not explicitly disclose about "*first/second messaging protocols*"; however, it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. "*first messaging protocols*" for the circuit-switched network and "*second messaging protocols*" for the packet-switched network, or vice versa, by using the interworking function, e.g. "*formatter*", in the Short message service-Interworking mobile switching center 'SMS-IW MSC', e.g. "*interworking function*", as disclosed in pag. 1, paras. [0007-0008]). **Bjelland** does disclose about the different interfaces between the SMS-GMSC and

Art Unit: 2661

SMS-IWMSC with the BSS via the E and A interface for the circuit-switched network ("*first interface*"), or with the SGSN, GGSN, etc. via Gd interface for the packet-switched network ("*second interface*") as claimed in claim 16, and where the SMS-GMSC and SMS-IWMSC ("*broadcast message center*") incorporated with the Short message switching center 'SM-SC' for transporting short messages ("*broadcast messages*") to/from mobile stations, but fails to explicitly disclose about the messages being "*teleservice*" messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57) by using the interworking in the MSC as disclosed in col. 5, lines 42-45; and about the Teleservice Server ("*broadcast teleservice message center*") incorporated with the enhanced server for generating notifications and data messages over-the-air to the registered mobile station ("*generating broadcast teleservice message*"; For example see Figs. 2-4; col. 5, lines 16-50) by the use of the message handler application in the teleservice server ("*broadcast message application*"; For example see col. 4, line 44 through col. 5, line 15) as claimed in claim 21.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Bjelland**'s SMS-GMSC and SMS-IWMSC, with the motivation being to provide the ability to transporting the teleservices from the

Art Unit: 2661

Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

- Regarding claims 3-4, 7, 11, 17, 19 and 22, **Bjelland** further discloses about the SGSN in the GPRS network and the Base transceiver station 'BTS' in the Base station subsystem 'BSS' for transporting data to and from mobile stations or terminals ("*General Packet Radio Service*", "*Serving GPRS support node*", "*point-to-multipoint services*"; For example see Figs 1-3; pag. 1, para. [0006]; pag. 1, para. [0010] to pag. 2, para. [0011]).

- In regard to claims 5-6, 8-9, 13, 18, 20 and 23, **Bjelland** further discloses about the different interfaces between the SMS-GMSC and SMS-IW MSC or BSS ("*Gm*", "*Gn*"; For example see pag. 1, para. [0006-0008]).

- Regarding claim 10, **Bjelland** discloses in Figs. 1-6 and in the respective portions of the specification about the method and apparatus for mapping between communication protocols in the packet-switched communication system ("*communication network*") having split control-plane/user-plane architecture; wherein the general packet radio service 'GSPR' operates with circuit-switched, e.g. the global system for mobile system 'GSM' or "*circuit-switched network*", for giving access to their registered mobile stations (For example see Figs. 1-2; pag. 1, para. [0004] to para. [0006]) to communicate with the Internet network or PDN ("*packet-switched network*"; For example see Figs. 1-2; pag. 1, para. [0007]), which have services with request to attach to the selected service networks (For example see Figs. 1-2; pag. 2, para. [0014]), and

Art Unit: 2661

converts media between different protocols ("*formatting between different messaging protocols*"; For example see pag. 3, para. [0020], pag. 2, para. [0009]; **Bjelland** does not explicitly disclose about "*first/second messaging protocols*"; however, it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. "*first messaging protocols*" for the circuit-switched network and "*second messaging protocols*" for the packet-switched network, or vice versa, by using the interworking function in the Short message service-Interworking mobile switching center 'SMS-IWMSC', e.g. "*interworking function*", as disclosed in pag. 1, paras. [0007-0008]). **Bjelland** does disclose about the SMS-GMSC and SMS-IWMSC ("*broadcast message center*") incorporated with the Short message switching center 'SM-SC' for transporting short messages ("*transmitting broadcast messages*") to/from registered mobile stations ("*mobile terminals having service with*") through different networks such as packet-switched network (Packet Data network 'PDN', Public Land Mobile network 'PLMN') and circuit-switched network (Global System for Mobile 'GSM'), but fails to explicitly disclose about the messages being "*teleservice*" messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57) by using the interworking in the MSC as disclosed in col. 5, lines 42-45; and about the Teleservice Server ("*broadcast teleservice message center*") incorporated with the enhanced server for generating notifications and data messages over-the-air to the registered mobile station by the



use of IS-136 teleservice/protocol ("*generating broadcast teleservice message*"; For example see Figs. 2-4; col. 5, lines 16-50).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Bjelland's** SMS-GMSC and SMS-IWMSC, with the motivation being to provide the ability to transporting the teleservices from the Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

#### *Allowable Subject Matter*

6. Claims 2, 12 and 15 are objected to as being dependent upon a rejected base claim (claims 1 and 10), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claim 14 would be allowable if rewritten or amended to overcome the objection(s) and rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

#### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Huttunen et al.** (U.S.6,671,287), **Sevanto** (U.S.6,747,989 and U.S.6,600,732) and **Räsänen, Juha** (WO 99/53704) are all cited to show devices and methods for improving data

Art Unit: 2661

transmission in the packet-switched cellular radio network in the telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (703) 305-7444. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703) 305-4703.

**Any response to this action should be mailed to:**

**Commissioner of Patents and Trademarks**

Washington, D.C. 20231

**or faxed to:**


**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.



Tri H. Phan  
June 11, 2004

  
**DOUGLAS W. OLMS**  
SUPERVISOR